

BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Milwaukee Water Works, Milwaukee County,
For Authority to Increase Water Rates

Docket No. 3720-WR-108

REBUTTAL TESTIMONY OF ERIC ROTHSTEIN
June 13, 2014

1 **Q. Please state your name.**

2 A. My name is Eric Paul Rothstein.

3 **Q. Did you provide testimony on behalf of the intervening wholesale customers related to**
4 **Milwaukee Water Works' (MWW) rate application (PSC REF#: 205543), the**
5 **Customer Demand Study prepared by Trilogy Consulting, LLC dated April 2014 (PSC**
6 **REF#: 204119), and the cost of service study (COSS) prepared by Raftelis Financial**
7 **Consulting (PSC REF#: 205539)?**

8 A. Yes.

9 **Q. Have you reviewed the direct testimony and exhibits submitted in this case by**
10 **Milwaukee Water Works staff, Public Service Commission staff as well as MWW's**
11 **consultants with Trilogy Consulting, LLC and Raftelis Financial Consultants, Inc.?**

12 A. Yes and I have also reviewed testimony and exhibits submitted by MillerCoors.

13 **Q. What is the purpose of your rebuttal testimony?**

14 A. The purposes of my rebuttal testimony are to: (1) to address the direct testimony of PSC
15 Staff member Anne Waymouth regarding MWW's requested rates of return, including the
16 requested differential between returns for retail and wholesale service; (2) address MWW
17 Superintendent Carrie Lewis' testimony related to the proposed rate increases for wholesale
18 vs. retail customer classes, and MWW's approaches to capital financing and water main

1 replacement investments; (3) address the Customer Demand Study discussed in testimony
2 submitted by Trilogy Consulting LLC's Christine Cramer and Erik Granum; and (4) address
3 misallocations of transmission vs. distribution costs in MWW's COSS as discussed by
4 Raftelis Financial Consulting's John Wright. Lastly, I will offer a brief comment to provide
5 further context for a point offered in testimony submitted by MillerCoors, in part as it
6 underscores my over-arching concern with MWW's rate increase request.

7 **Q. What is your over-arching concern with MWW's rate increase request?**

8 A. My concern relates to the undue and insensitive reliance on rules of thumb, benchmarks, and
9 typical practices without recognition of atypical circumstances that characterize this case. At
10 worst, this reliance seems a cynical strategy to shift cost responsibilities from retail (and
11 most dramatically voting residential) customers to wholesale customers (and to a lesser
12 extent industrial users). At best, this myopia sets aside the fundamental requirement of
13 sound ratemaking (and utility financial management) to exercise informed judgment –
14 particularly when rate calculations claimed to be formulaic would result in such disparate
15 rate adjustments across customer classes.

16 **Q. What are your comments on PSC staff member Anne Waymouth's testimony on**
17 **MWW's requested composite rate of return?**

18 A. Ms. Waymouth's testimony sets forth the standard PSC procedures for evaluating requested
19 rates of return. She notes that:

20 *...while the 3.27 percent cost of debt is a number based on the utility's*
21 *embedded debt costs, the composite return on equity of 5.55 percent is a back*
22 *calculated number. Staff does not propose this number as a reasonable cost*
23 *of equity. In rate case proceedings for municipal utilities, the Commission's*
24 *focus is on a reasonable return on rate base for municipal utility assets. The*
25 *return on municipal equity is the result of the utility's capital structure and*
26 *embedded debt costs. (Direct-PSC-Anne Waymouth-2, line 27 to -3, line 4.)*

1 Based on the application of the Commission's water Benchmark Return on
2 Rate Base (Benchmark return), the utility's proposed return on rate base is
3 reasonable. (Direct-PSC-Anne Waymouth-3, lines 8-9.)

4 Ms. Waymouth's testimony on the cost of municipal equity is deeply concerning. The extent
5 of returns on equity resulting from a utility's capital structure should not be considered
6 merely as a mathematical curiosity. MWW's potential receipt of over \$16 million in return
7 on equity may initially be a derived or "back calculated" value, yet it should be of profound
8 importance and relevant for the Commissioners' consideration of determining what is a
9 reasonable return.

10 Is it reasonable for MWW to earn over \$16 million in return on its municipal equity?

11 In answering this question it behooves the Commission to eschew application of its standard
12 "benchmarks" and to recognize the implications of MWW's atypical capital structure. When
13 it comes to determining reasonableness, capital structure matters.

14 **Q. What are your concerns with respect to Ms. Waymouth's testimony regarding MWW's**
15 **request for preservation of a 100 basis point return differential between wholesale and**
16 **retail customer classes?**

17 A. My concerns are similar to those with respect to the composite rate of return. I am
18 concerned that the PSC will apply a standard approach to this issue, instead of looking
19 specifically at the unique attributes surrounding MWW's service to all its customers,
20 including its wholesale customers. The Commission should infuse a further measure of
21 discretion and judgment into its decision regarding the return differential.

22 **Q. Do you have any specific response to Ms. Waymouth's testimony regarding MWW's**
23 **request for a return differential between wholesale and retail customer classes?**

24 A. As Ms. Waymouth points out in her testimony (Direct-PSC-Anne Waymouth-8 through -10),
25 when evaluating return differentials the AWWA M1 Manual calls for consideration of the

1 unique attributes of service provided by owning municipalities to nonowner customers –
2 citing first and foremost risks associated with nonowner customer departures and stranding
3 of system capacity. Notably, as discussed in Andrew Behm’s Rebuttal Testimony, MWW’s
4 wholesale customers have not posed a greater risk of departure than MWW’s retail
5 customers. To the contrary, these wholesale customers have absorbed the consequences of
6 MWW’s loss of retail customer demands.

7 As reviewed in my direct testimony (Direct-Wholesale Customers-Rothstein-21, line
8 20 to -23, line 20), MWW’s wholesale customers do not impose substantially greater risks to
9 MWW than MWW’s retail customer base. Moreover, MWW’s wholesale customer base has
10 effectively insulated MWW from the consequences of many of its inherent service delivery
11 risks. Cost consequences of MWW’s available (arguably excess) capacity are mitigated for
12 all users by the spreading of these costs over the entirety of MWW’s customer base
13 including service to wholesale customers. Water losses occur disproportionately in MWW’s
14 distribution system, yet for all intents and purposes, MWW’s wholesale customers pay a
15 proportionate share of the associated costs of MWW’s water loss. Irrespective of the locus
16 of declining sales volumes - retail or wholesale - revenue shortfalls precipitate rate increases
17 that apply to both retail and wholesale users. (Incidentally, Carrie Lewis’ testimony notes
18 that declining sales have been more pronounced among MWW’s retail classes (Direct-
19 MWW-Lewis-2, lines 16-19)).

20 For MWW, not only are the risks associated with wholesale service delivery akin to
21 those of retail delivery, the very existence of its diverse set of wholesale customers mitigates
22 MWW’s risks - obviating a basis for a rate of return differential.

23 **Q. What are your views with regard to Carrie Lewis’ testimony on MWW’s approaches to**
24 **this requested rate increase?**

1 A. Ms. Lewis claims that: “MWW resolved to approach the ratemaking in a fair and unbiased
2 manner to produce a result that would be equitable to all ratepayers” (Direct-MWW-Lewis-
3 5, lines 8-9), yet it is difficult to reconcile the notion of equity with such pronounced
4 differences in MWW’s proposed rate increases across retail vs. wholesale classes.

5 Ms. Lewis claims that the wholesale customers’ rate increases are: “largely due to
6 the utilization of actual customer demand ratios in place of the assumptions used in the
7 2009-11 rate case” -- relying on the ratemaking truism that “[u]tilization of the actual ratios
8 as measured and calculated for each wholesale customer class to develop MWW’s Cost of
9 Service is a significant factor in designing a fair and equitable rate structure.” (Direct-
10 MWW-Lewis-10, lines 15-19.) Yet, in employing these ratios seemingly by rote, the
11 fundamental inadequacies of the Customer Demand Study that serve as the basis for the
12 “actual ratios” are set aside. The crippling inadequacies in the Customer Demand Study are
13 reviewed in detail in my testimony (Direct-Wholesale Customers-Rothstein-4 to -14) as well
14 as that of other witnesses for the wholesale customers.

15 Ms. Lewis’ claim to be relying on standard protocols in MWW’s ratemaking
16 practices -- while relying on fundamentally flawed data and assumptions -- demonstrates a
17 profound lack of discretion and judgment.

18 **Q. What are your views with regard to Carrie Lewis’ testimony on MWW’s approaches to**
19 **capital financing?**

20 A. Ms. Lewis’ assertion that MWW’s rate increases are needed to “allow for increased
21 investment in infrastructure” (Direct-MWW-Lewis-6, lines 21-22) is occasioned only out of
22 stubborn allegiance to a capital financing strategy that is blind to MWW’s own capital
23 structure.

1 **Q. Could MWW increase its investment in infrastructure without obtaining its proposed**
2 **rate increases?**

3 A. Yes. The contention that MWW's rate increase application is required in order to generate
4 more funds to invest in infrastructure is simply nonsense. MWW could easily generate
5 multiples of its planned annual investment in infrastructure with the incurrence of debt. The
6 issuance of debt for infrastructure investment would only mitigate the striking imbalance of
7 MWW's current capital structure. As described on the PSC's own website:

8 *The utility should attempt to maintain a balanced capital structure which will*
9 *allow it to attract the new capital needed for plant replacement and*
10 *expansion. The optimum capital structure is generally considered to be 50*
11 *percent equity and 50 percent debt. The long-term financial and operational*
12 *integrity of the utility is dependent on establishing and maintaining a*
13 *balanced capital structure and earning a reasonable return on the*
14 *municipality's investment in the utility.*
15 [http://psc.wi.gov/utilityinfo/water/utilityTraining/rateMaking/rrComponents.](http://psc.wi.gov/utilityinfo/water/utilityTraining/rateMaking/rrComponents.html)
16 [html](http://psc.wi.gov/utilityinfo/water/utilityTraining/rateMaking/rrComponents.html)

17 **Q. Do you disagree with Ms. Lewis' contention that cash financing for water main**
18 **replacement is appropriate given the need for steady annual investment?**

19 A. I do not disagree that cash financing is appropriate in typical circumstances. Indeed, I have
20 advocated in other contexts that utilities should establish revenue requirements that provide
21 for cash financing of annual renewal and replacement needs. MWW, however, does not
22 have the capital structure of a typical utility. MWW has an atypical capital structure (Direct-
23 Wholesale Customers-Rothstein-16, line 21 to -17, line 15) that provides it more than ample
24 capacity to finance additional water main replacements without imposing undue rate burdens
25 on its customers. While an effective long-term capital financing strategy for MWW may
26 eventually lead to cash financing of water main replacements, that strategy is not appropriate
27 now. Context is important.

1 MWW's allegiance to cash financing of water main replacements would not seem
2 nearly so egregious if MWW was not seeking to impose unnecessary rate increases that, for
3 its wholesale customers, are mostly in excess of 20%. MWW's claims of commitment to
4 steady renewal and replacement would not ring nearly so hollow if MWW had not actually
5 reduced its capital spending because of regulatory lag and lower than requested rate
6 adjustments coming out of its prior rate case (Docket No. 3720-WR-107) as noted by Anne
7 Waymouth's testimony (Direct-PSC-Anne Waymouth-15, line 3 to -16, line 15).

8 **Q. Is reliance on debt to finance water main replacements sustainable over the long run?**

9 A. No. On this point, I agree with MWW's witness Peiffer Brandt. (Direct-MWW-Brandt-10,
10 lines 19-20.) But as Maynard Keynes quipped: "In the long run, we are all dead". More to
11 the point, I am not advocating here for a permanent, immutable rule of thumb or re-defined
12 standard practice that would unduly leverage MWW's financial capacity. Hopefully my
13 testimony conveys a disdain for lock-step allegiance to prescriptive protocols. Rather, I am
14 suggesting that a more strategic, well considered approach to capital financing that employs
15 MWW's noteworthy financial and physical capacities would provide for fairer, more
16 equitable rates for all of MWW's customer classes.

17 **Q. Do you disagree with MWW's contention that use of demand ratios developed through**
18 **the Customer Demand Study is "a significant factor in designing a fair and equitable**
19 **rate structure"?**

20 A. I completely disagree with the contention that the Customer Demand Study provides a fair
21 and equitable basis for revising customer demand ratios in this case. Over the course of
22 nearly 100 pages of text and charts, the Customer Demand Study (PSC REF#: 204119)
23 provides interesting anecdotal information – and little else. As discussed at length in my

1 testimony and the testimony of other wholesale customer witnesses, the Study is
2 fundamentally flawed and wholly unsuited for use in MWW's COSS.

3 **Q. Do you have comments on the testimony offered by Christine Cramer and Erik**
4 **Granum of Trilogy Consulting, LLC, who conducted the Customer Demand Study and**
5 **suggest the use of the derived demand ratios for use in this case?**

6 A. Yes. Though the points offered in my testimony (Direct-Wholesale Customers-Rothstein-4
7 to -14) remain unaltered following my review of their testimony, I do think several
8 additional points are noteworthy – again to place contentions into appropriate context.

9 For example, Ms. Cramer notes that:

10 *Milwaukee's previous rate studies were based on a 1977 study by Black and*
11 *Veatch. The data that we collected from samples of retail customers in 2012*
12 *and 2013 indicated that these 1977 data do not represent current patterns of*
13 *water demand. (Direct-MWW-Cramer-2, lines 20-23.)*

14 Undoubtedly both retail and wholesale demand patterns have changed since 1977. However,
15 the critical question for purposes of defining demand factors for use in a cost-of-service
16 study is not whether, or even how much, individual customer class demand patterns have
17 changed over time. Rather, the critical questions relate to relative responsibilities for peak
18 period demands across customer classes. This is why the differences in monitoring periods
19 between wholesale and retail customers is so crippling, even if the deficiencies in metered
20 user sampling sizes were somehow remedied.

21 Similarly, Mr. Granum's testimony describes coping mechanisms for the fact that
22 "there was a limited timeframe in which data was available" for eight (8) of MWW's
23 wholesale customers. (Direct-MWW-Granum-3, lines 16-17.) He notes that:

24 *With additional data, a customer's peaking ratios would naturally regress to*
25 *an average figure over time.*

26 *If enough data were available, an average of historical data would be*
27 *sufficient to determine each customer's average peak demand ratios.*

1 *However, a simple average would not work with the number of data points in*
2 *this analysis because the unbalanced number of ratios that are calculated*
3 *based on the 2012 peak event(s) versus the 2013 peak event(s) would skew*
4 *the calculated number either high or low. To correct for this, the analysis*
5 *first averages the group of peak ratios associated with each distinct peak*
6 *water usage event and then averages the ratios of all of the distinct peak*
7 *events. (Direct-MWW-Granum-3, line 22 to -4, line 9.)*

8 First, it is an open question as to whether a customer's peaking ratio would converge to an
9 average figure over time. This is the point of monitoring. However, more fundamentally, it
10 bears reminding that the coping mechanisms described here deals with the asymmetry of
11 collections across monitoring periods. But, the critical question is not how to blend more or
12 less data from two different periods but rather whether the periods themselves will yield
13 representative results. Data drawn substantially from the hottest, driest year in recent
14 memory will not.

15 **Q. Do you have any comments on the cost allocations in MWW's cost of service analysis**
16 **(PSC REF#: 205539) sponsored by John Wright of Raftelis Financial Consultants?**

17 **A. Yes. Mr. Wright reports that:**

18 *MWW utilizes an installed inventory of approximately 46.1 million inch-feet*
19 *of mains with a diameter 12" or smaller to meet the base and maximum hour*
20 ***demands of distribution customers.** MWW also utilizes an installed inventory*
21 *of approximately 68.5 million inch-feet of water mains with a diameter 16" or*
22 *larger to meet the system-wide base, maximum day and maximum hour*
23 *demands. (Direct-MWW-Wright-6, lines 7-12, emphasis added.)*

24 Similarly, in MWW's COSS model, its "T&D Main Analysis" spreadsheet designates pipes
25 with diameters 16-inch and larger as Transmission Main while pipes of diameters 12" inches
26 and smaller are designated as Distribution Main. MWW has documented that the original
27 cost of these pipes is known, with transmission pipe costing approximately 29% of the total
28 cost of water mains and distribution mains representing approximately 71% of the total main
29 cost.

1 While one would think that the allocation of main costs to transmission and
2 distribution based upon these actual costs would be straightforward, Mr. Wright reports that
3 MWW believes that a measure of the diameter inch-feet of main is a more appropriate basis
4 for allocation of water main costs between transmission and distribution functions. He offers
5 the garbled logic that:

6 *Inch-feet is a quantitative measurement of the physical attributes of the water*
7 *mains used to meet the demands that customers place on the MWW system.*
8 *The use of inch-feet as a basis for allocating MWW's investment in water*
9 *mains between the transmission and distribution functions better correlates*
10 *this investment to the customer demands that specific sized mains are*
11 *required to meet. (Direct-MWW-Wright-6, lines 3-7.)*

12 Mr. Wright's testimony completely misses the question relevant to the allocation of
13 mains in a cost of service study. The question, pure and simple, is how much of the water
14 main costs were incurred for transmission versus distribution mains. The answer to this
15 question is known, requiring no estimation procedure or data manipulation.

16 Mr. Wright's testimony on the allocation of transmission and distribution main costs
17 (and associated depreciation expense) renders confusion where clarity should prevail, and
18 embraces dubious and unfounded estimations in lieu of documented fact.

19 **Q. You indicated that MillerCoors' testimony underscores your over-arching concerns**
20 **with MWW's proposed rate increases. Please explain.**

21 **A.** I have attempted throughout my rebuttal testimony to point to MWW decisions and technical
22 manipulations that shift costs inappropriately to MWW's wholesale customers. I have also
23 explained why MWW's requested rate increase is not driven by a credible inability to raise
24 capital for needed investments. Whether an intentional strategy to redistribute revenue
25 responsibilities away from the (voting) residential classes or merely the consequence of lock-
26 step application of procedures that demand a measure of discretion, the outcomes are the

1 same. In many ways, MWW's most valuable and faithful customers are being needlessly
2 disenfranchised. MillerCoors witness Philip Q. Hauser comments on MWW's proposed rate
3 design ominously reflect this distress:

4 *I infer that the proposed rates for individual retail customer classes have been*
5 *designed to balance rate stability or "tempering" and changes in cost*
6 *allocations resulting from the cost of service study. While it is generally*
7 *appropriate to temper rate increases in this way, I note that the result of this*
8 *balancing is that, of the retail rate classes, urban residential customers would*
9 *see the smallest increase and urban industrial customers would see the largest*
10 *increase (in fact, MillerCoors is facing a 15.3% rate increase, well above the*
11 *system average). It is common practice to balance rate stability and cost*
12 *allocation in this way, although large increases in industrial rates can cause a*
13 *significant impact on demand that could substantially reduce MWW revenues.*
14 *(Direct-MillerCoors-Hanser-3, line 17 to -4, line 8.)*
15

16 **Q. Are the opinions you express in this rebuttal testimony to a reasonable degree of**
17 **professional certainty?**

18 A. Yes.

19 **Q. Does this conclude your rebuttal testimony?**

20 A. Yes.